

Drinking Water Source Protection and Manure Storage at Concentrated Animal Feeding Facilities

Ohio's environmental regulations help protect drinking water quality by requiring distance between manure storage at regulated animal feeding facilities and sources of public drinking water.

Who regulates these activities?

Ohio EPA's Division of Drinking and Ground Waters (DDAGW) regulates public water systems. DDAGW also administers the Source Water Assessment and Protection (SWAP) program, which determines the protection area surrounding a drinking water source. Ohio EPA has evaluated all Ohio public water systems to identify and outline these protection areas.

Ohio Department of Agriculture's (ODA) Livestock Environmental Permitting program regulates Ohio's largest livestock and poultry farms. Their program helps protect sources of drinking water by enforcing construction standards for manure storage or treatment facilities, and by prohibiting these facilities in source water protection areas.

What are manure storage or treatment facilities?

Manure storage or treatment facilities are excavated, diked or walled structures designed for stabilizing, holding or storing manure. They include manure storage ponds, manure treatment lagoons, fabricated structures, lagoons, manure storage sheds, under house or pit storages and composting areas.

Manure storage ponds and manure treatment lagoons consist of an earthen impoundment made by constructing an embankment and/or excavating a pit. The purpose of a storage pond is to store or settle the solids from liquid manure. The purpose of a treatment lagoon is to biologically treat liquid manure.

What storage restrictions apply near public water systems?

At concentrated animal feeding facilities regulated by ODA, manure storage or treatment facilities cannot be located within a public water system's inner management zone. If the public water system has been determined to be highly susceptible to contamination, then manure storage or treatment facilities located in the outer management zone must install additional engineering controls designed to protect source water.

How does this protect drinking water?

There is the potential for the manure, which may contain significant levels of pathogenic (or disease-causing) microorganisms, to enter a source of drinking water. Locating manure storage and treatment facilities outside of the inner management zone provides a buffer between the facility and the source of drinking water. This buffer allows time for the facility operator, public water system and government agencies to respond in the event of an accidental release. Extra controls (located in the outer management zone) can create an additional buffer between the facility and source water.



In Ohio, there are restrictions on locating manure storage or treatment facilities at some concentrated animal feeding operations near public water systems. (Photo source: U.S. EPA).

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Where are drinking water source protection areas?

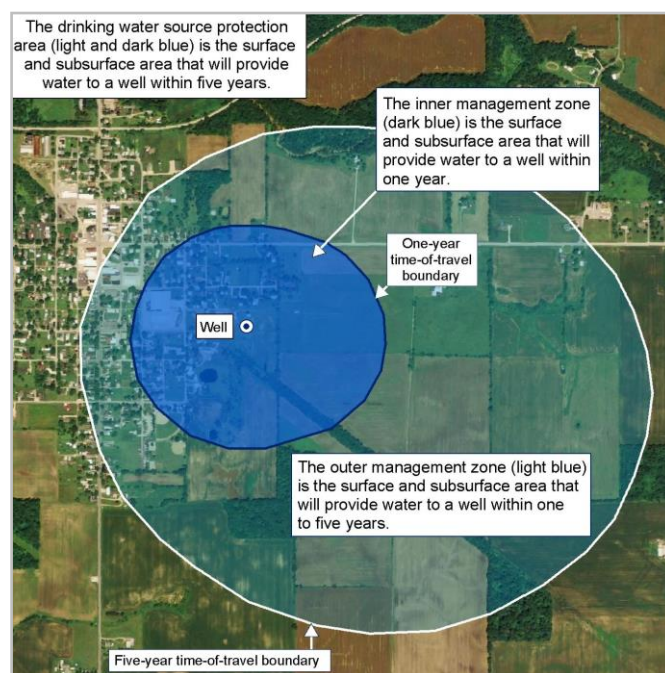
To determine if an existing or proposed facility is located within a drinking water source protection area, Ohio EPA has developed a mapping application that will enable you to locate source water protection areas. The application is available online as a link on the SWAP webpage at epa.ohio.gov/ddagw. You can also contact Ohio EPA's SWAP program by emailing us at the address listed below. Please include the location of the existing or proposed facility (a map showing the location is best), the reason for your request (such as: concentrated animal feeding facility), and your contact information, including your email address.

Additional Information

- Guidelines for livestock operations.
- Public involvement information.
- A permit-to-install a livestock operation.
- A permit-to-operate a livestock operation.
- Ohio Department of Agriculture, Livestock Environmental Permitting Program (LEPP), agri.ohio.gov/divisions/livestock-environmental-permitting.
- Concentrated Animal Feeding Facilities Rules, Ohio Administrative Code Chapter 901, agri.ohio.gov/divisions/livestock-environmental-permitting/laws-and-rules.
- Well Siting, Ohio Administrative Code Chapter 9, epa.ohio.gov/divisions-and-offices/drinking-and-ground-waters/regulations/effective-rules.

Contact

For more information, contact Ohio EPA's Division of Drinking and Ground Waters, Source Water Assessment and Protection program, at (614) 644-2752, or email whp@epa.ohio.gov. Visit the SWAP webpage at epa.ohio.gov/ddagw.



This fact sheet is intended to provide an overview of this program as it relates to drinking water source protection and the SWAP program. The activities or structures described have additional restrictions not discussed in this document. When investigating state or federal programs for information about source water protection, please consult with staff from that particular program for the most complete and current information.